

Cognitive and Behavioral Phenotypes: SNPs of Interest

Gene	Chr	Trait Associated with the Gene	References	SNP	Position	coded_allele	non_coded_allele	exp_req_coded_allele	info	certainty	
Apolipoprotein E (APOE)	19	Alzheimer's Disease, Cognitive Function	1,2,5,6,7,11,20,23,24,30,34,35	rs7412	45412079	C	T	0.918	0.991	0.998	
				rs429358	45411941	T	C	0.855	0.992	0.997	
Brain-derived neurotrophic factor (BDNF)	11	Depression, Memory	1,14,21,28	rs6265 (Val66Met)	27679916	C	T	0.827	1	1	
Catechol-O-methyltransferase (COMT)	22	Schizophrenia, Cognitive Function	15	rs4680 (Val158Met)	19951271	G	A	0.52	1	1	
Corticotropin releasing hormone receptor 1 (CRHR1)	17	Stress-related Disorders, Personality Trait Neuroticism		rs110402	43880047	G	A	0.566	1	1	
				rs242924	43885367	G	T	0.563	0.986	0.99	
				rs7209436	43870142	C	T	0.577	0.98	0.986	
FK506 binding protein 5 (FKBP5)	6	Stress-related Disorders (chaperone of hsp90, which binds to GR)		rs3800373	35542476	C	A	0.309	1	1	
				rs1360780	35607571	T	C	0.322	0.999	1	
				rs9470080	35646435	T	C	0.352	0.998	0.999	
				rs9296158	35567082	A	G	0.332	1	1	
Fat mass and obesity associated (FTO)	16	Obesity		rs9939609	53820527	T	A	0.599	1	1	
Neuropeptide Y (NPY)	7	Stress-related Disorders		rs16147	24323410	T	C	0.493	1	1	
				rs3037354 (-/TG type)							
				rs17149106	24323207	G	T	0.961	0.995	1	
				rs16139	24324879	T	C	0.969	1	1	
				rs5573 (kgp9674841)	24325009	G	A	0.494	1	1	
rs5574	24329133	C	T	0.541	1	1					
Oxytocin receptor (OXTR)	3	Autism, Prosocial Behavior/Social Affiliation		rs53576 (kgp10617)	8804371	A	G	0.315	1	1	

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adrenergic beta-2 receptor	ADRB2	5	148201156	148213196	Cognition	1	95	73
v-akt murine thymoma viral oncogene homolog 1	AKT1	14	105230686	105267088	Cognition	1	306	226
aldehyde dehydrogenase 5A1	ALDH5A1 (SSADH)	6	24490080	24542435	Cognition	1	468	404
apolipoprotein E	APOE	19	45404011	45417650	Cognition, Alzheimer's Disease	1,2,5,6,7,11,20,23,24,30,34,35	85	62
amyloid beta A4 precursor protein	APP	21	27247861	27548446	Cognition	1	2310	1713
brain-derived neurotrophic factor	BDNF	11	27671440	27748605	Cognition, Depression	1,14,21,28	357	261
cystathionine-beta-synthase	CBS	21	44468301	44502053	Cognition	1	320	214
cholecystokinin A receptor	CCKAR	4	26478022	26497084	Cognition		186	135
cholesteryl ester transfer protein, plasma	CETP	16	56990762	57022757	Cognition	1	343	260
cholinergic receptor, muscarinic 2	CHRM2	7	136548416	136710002	Cognition		1115	853
cholinergic receptor, nicotinic, alpha 3 (neuronal)	CHRNA3	15	78880394	78918637	Smoking, Alcohol Dependence		292	230
cholinergic receptor, nicotinic, alpha 4	CHRNA4	20	61970420	62014753	Cognition	1	484	349

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(neuronal)								
cholinergic receptor, nicotinic, alpha 5 (neuronal)	CHRNA5	15	78852862	78892611	Smoking, Alcohol Dependence		294	240
cholinergic receptor, nicotinic, alpha 6 (neuronal)	CHRNA6	8	42602763	42656535	Smoking		379	281
cholinergic receptor, nicotinic, alpha 7 (neuronal)	CHRNA7	15	32317691	32469722	Cognition		969	610
cholinergic receptor, nicotinic, beta 3 (neuronal)	CHRN3	8	42547519	42597550	Smoking		486	410
cholinergic receptor, nicotinic, beta 4 (neuronal)	CHRN4	15	78911461	79017628	Smoking, Alcohol Dependence		835	646
cholinergic receptor, nicotinic, delta	CHRNA7	2	233385703	233406377	Smoking, Alcohol Dependence		139	107
catechol-O-methyltransferase	COMT	22	19924130	19962498	Cognition, Schizophrenia	15	384	328
corticotropin releasing hormone receptor 1	CRHR1	17	43694267	43918194	Stress-related Disorders, Personality		1893	1494
cathepsin D	CTSD	11	1768982	1790222	Cognition	1	185	139
cytochrome P450, family 2, subfamily A, polypeptide 6	CYP2A6	19	41344443	41361352	Smoking		145	71
cytochrome P450, family 3, subfamily A, polypeptide 4	CYP3A4	7	99349604	99386888	P450 Gene: Drug and Xenobiotic Metabolism		184	142
cytochrome P450,	CYP3A5	7	99240817	99282621	P450 Gene: Drug and		222	166

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family 3, subfamily A, polypeptide 5					Xenobiotic Metabolism			
D-amino acid oxidase activator	DAOA	13	106113216	106148383	Cognition	1	366	304
dopamine beta-hydroxylase (dopamine beta-monoxygenase)	DBH	9	136496482	136529466	Cognition		357	250
disrupted in schizophrenia 1	DISC1	1	231757561	232182018	Cognition	1,31	3161	2487
dopamine receptor D3	DRD3	3	113842499	113923254	Cognition	1	549	446
dystrobrevin binding protein 1	DTNBP1	6	15518032	15668289	Cognition	1	880	706
v-erb-a erythroblastic leukemia viral oncogene homolog 4	ERBB4	2	212235446	213408565	Cognition	1	10069	8394
FK506 binding protein 5	FKBP5	6	35536362	35701360	Stress-related Disorders	1	1068	816
fragile X mental retardation 1	FMR1	X	146988469	147037645	Cognition		167	119
fat mass and obesity associated	FTO	16	53732875	54160853	Obesity		3128	2424
galanin	GAL (GALN)	11	68446247	68463643	GABA Receptor		116	85
major histocompatibility complex, class II, DR beta 1	HLA-DRB1	6	32541546	32562625	Cognition	1	1392	613
5-hydroxytryptamine (serotonin) receptor 2A, G protein-coupled	HTR2A	13	47402513	47476169	Cognition	1	603	461

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interleukin 1, beta	IL1B	2	113582328	113599480	Cognition	1	80	61
klotho	KL	13	33585207	33645282	Cognition	1,9	551	431
kallikrein related-peptidase 8	KLK8	19	51494263	51509967	Cognition	1	139	112
myeloperoxidase	MPO	17	56342217	56363296	Cognition	27	105	71
homeobox, msh-like 1	MSX1	4	4856393	4870663	Cognition	1	129	113
methylenetetrahydrofolate reductase (NAD(P)H)	MTHFR	1	11840780	11871977	Cognition	1,12	303	238
nicastrin	NCSTN	1	160308062	160333742	Cognition	1	169	141
neuropeptide Y	NPY	7	24318782	24336484	Stress-related Disorders		167	142
opioid receptor, mu 1	OPRM1	6	154326631	154573001	Opioid Receptor: Drug Dependence, Cognitive Functions		1869	1542
oxytocin receptor	OXTR	3	8787094	8816314	Autism, Prosocial Behavior		274	214
peroxisome proliferator-activated receptor gamma	PPARG	3	12323867	12480855	Cognition	1,18	916	716
protein phosphatase 1, regulatory (inhibitor) subunit 1B	PPP1R1B	17	37777993	37797879	Cognition		106	88
prion protein	PRNP	20	4661882	4687236	Cognition	1,19	162	126
solute carrier family 6 (neurotransmitter transporter, noradrenalin), member 2	SLC6A2	16	55684516	55745104	Norepinephrine Transporter: ADHD		509	405

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solute carrier family 6 (neurotransmitter transporter, serotonin), member 4	SLC6A4	17	28516337	28568020	Cognition	26	327	244
synaptosomal-associated protein, 25kDa	SNAP25	20	10194478	10293066	Cognition	1	646	489
sortilin-related receptor, L(DLR class) A repeats containing	SORL1	11	121317912	121509402	Cognition	1	1158	866
tumor necrosis factor	TNF	6	31538344	31551113	Cognition	1	70	65
Werner syndrome, RecQ helicase-like	WRN	8	30886317	31036285	Cognition	1	940	764
WW and C2 domain containing 1	WWC1 (KIBRA)	5	167713656	167904308	Cognition	1	1622	1277

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